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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------|------------------|
| 10/670,309  | 09/26/2003  | Paul A. Dinnage      | 01384.002056.1            | 5331             |
| 5514  | 7590        | 04/23/2004           | EXAMINER                  |                  |
| FITZPATRICK CELLA HARPER & SCINTO<br>30 ROCKEFELLER PLAZA<br>NEW YORK, NY 10112 |             |                      | DOERRLER, WILLIAM CHARLES |                  |
|   |             |                      | ART UNIT                  | PAPER NUMBER     |
|   |             |                      | 3744                      |                  |
| DATE MAILED: 04/23/2004   |             |                      |                           |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/670,309

Applicant(s)

DINNAGE ET AL.

Examiner

William C Doerrler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Norback.

Norback shows an air condition system with a desiccant wheel 16 which dries air which has been cooled by heat exchanger 14. Column 6 line 20 states that condenser heat may be used to regenerate the desiccant. Column 5 lines 31-40 state that cooling heat exchanger is turned off when air conditions dictate. This is seen as shutting off the compressor, which is "controlling the output of the compressor" as claimed.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harband in view of Meckler '438.

Harband discloses applicants' basic inventive concept, an air conditioning system which cools the air using a vapor compression system and then dehumidifies the cooled air with a desiccant wheel which is regenerated using condenser heat, substantially as claimed with the exception of controlling the compressor in relation to the conditions. Meckler '438 shows this feature to be old in the desiccant wheel assisted cooling system in column 9 lines 22-51, specifically line 43 which states that the compressor speed may be changed. It would have been obvious to one of ordinary skill in the art at the time of applicants' invention from the teaching of Meckler to modify the desiccant assisted air conditioner of Harband by controlling the compressor in relation to sensed conditions.

Claims 5,6,8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harband in view of Meckler '438 as applied to claims 1-4 and 7 above, and further in view of Kitagaki et al.

Harband, as modified, discloses applicants' basic inventive concept, a desiccant assisted air conditioning system which controls the compressor in relation to sensed conditions, substantially as claimed with the exception of controlling the air passing over the condenser in relation to the condenser pressure. Kitagaki et al show this feature to

be old in the air conditioning art. It would have been obvious to one of ordinary skill in the art at the time of applicants' invention from the teaching of Kitagaki et al to modify the desiccant assisted air conditioner of Harband by controlling air flow over the condenser in relation to condenser pressure to improve the efficiency of the vapor compression portion of the system while removing as much heat as possible while ensuring proper operation.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4,7 and 10-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,557,365 in view of Meckler '438. Applicants' prior patent claims the same basic inventive concept, an air conditioning system which cools the air using a vapor compression system and then dehumidifies the cooled air with a desiccant wheel which is regenerated using condenser heat, substantially as currently claimed with the exception of controlling the compressor in relation to the conditions. Meckler '438

shows this feature to be old in the desiccant wheel assisted cooling system in column 9 lines 22-51, specifically line 43 which states that the compressor speed may be changed. It would have been obvious to one of ordinary skill in the art at the time of applicants' invention from the teaching of Meckler to modify the desiccant assisted air conditioner of applicants' earlier patent by controlling the compressor in relation to sensed conditions.

Claims 5,6,8,9,14 and 15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,557,365 in view of Kitagaki et al.

Applicants' earlier patent, as modified, claims applicants' basic inventive concept, a desiccant assisted air conditioning system which controls the compressor in relation to sensed conditions, substantially as claimed with the exception of controlling the air passing over the condenser in relation to the condenser pressure. Kitagaki et al show this feature to be old in the air conditioning art. It would have been obvious to one of ordinary skill in the art at the time of applicants' invention from the teaching of Kitagaki et al to modify the desiccant assisted air conditioner of applicants' earlier patent by controlling air flow over the condenser in relation to condenser pressure to improve the efficiency of the vapor compression portion of the system while removing as much heat as possible while ensuring proper operation.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shaw shows a variable speed compressor which is controlled by

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sensed conditions. Calton et al, Maeda '511 and '065, Yoho and Meckler '464 show desiccant assisted vapor compression cooling systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C Doerrler whose telephone number is (703) 308-0696. The examiner can normally be reached on Monday-Friday 6:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel can be reached on (703) 308-2597. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William C Doerrler  
Primary Examiner  
Art Unit 3744

WCD